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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/987,849

11/16/2001

Jarkko Viinikanoja

006916.00010

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22907 7590 11/27/2009

BANNER & WITCOFF, LTD.

1100 13th STREET, N.W.

SUITE 1200

WASHINGTON, DC 20005-4051

EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

11/27/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/987,849	<b>Applicant(s)</b> VIINIKANOJA ET AL.	
	<b>Examiner</b> LUONG T. NGUYEN	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 106-108,110,112-116,119-121,124,125,127,129 and 144-148 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 106-108,110,112-116,119-121,124,125,127,129 and 144-148 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/05/08,06/05/08</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 07/28/2009 have been fully considered but they are not persuasive.

In re page 10, Applicants argue that in Yoshida reference, there would be no teaching, disclosure, or even suggestion of any optical properties changing unit that could cooperate with the lens module of the camera system and that would comprise a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combinations thereof.

In response, regarding claim 106, the Applicants amended claim 106 with limitation “wherein the unit comprises **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof.” Since claim 106 recites limitation “**at least one of**”, the Examiner considers that Yoshida still disclose claim limitation “wherein the unit comprises a lens,” as a lens 108 (figure 1, column 5, lines 25-30).

In re page 10, Applicants argue that the recited optical properties changing unit is an optical unit rather than an actuator or controls for adapting the lens module itself. The recited optical properties changing unit is also comprised by the housing. The pending claims do not recite that the housing surrounds the optical properties changing unit, but rather the housing itself comprises the optical properties changing unit.

In response, regarding claim 106, the Applicants amended claim 106 with limitation “the housing further comprising an optical properties changing unit configured to cooperate with lens

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module of the camera system.” Noted that claim 106 recites limitation "comprising," comprising is a broad term, therefore, the Examiner still considers that the housing of the digital camera 100 of Yoshida reference comprises a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, figure 1, which corresponds to “an optical properties changing unit configured to cooperate with the lens module.” It is critical to note that the PTO must give claim words their broadest reasonable meaning in their ordinary usage, as understood by one of ordinary skill in the art. **In re Morris**, 127 F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997).

In re pages 10-11, regarding claims 120-124, Applicants argue that Wang does not teach, disclose, or suggest the rejected subject matter of the rejected claims.

In response, regarding claim 120, the Applicants amended claim 120 with limitation “the apparatus comprising a unit comprising **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof.” Since claim 120 recites limitation “**at least one of**”, the Examiner considers that Wang still discloses claim limitation “a unit comprising a lens” as shown in Figure 6.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

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Claim 106 (line 10) recites limitation “a diffractive optical element”, the specification fails to provide proper antecedent basis for this limitation.

Claim 113 (line 6) recites limitation “a diffractive optical element”, the specification fails to provide proper antecedent basis for this limitation.

Claim 120 (line 7) recites limitation “a diffractive optical element”, the specification fails to provide proper antecedent basis for this limitation.

Claim 125 (line 9) recites limitation “a diffractive optical element”, the specification fails to provide proper antecedent basis for this limitation.

Claim 144 (line 9) recites limitation “diffractive optical means”, the specification fails to provide proper antecedent basis for this limitation.

### ***Claim Objections***

3. Claims 106, 108, 113, 116, 125 are objected to because of the following informalities:

Claim 106 (Line 8), Claim 108 (Lines 2, 2-3), Claim 113 (Lines 5, 10), Claim 116 (Lines 1-2), Claim 125 (Lines 6-7, 8), “the unit” should be changed to --the optical properties changing unit--.

Claim 108 (Line 2), “the housing part” should be changed to --the detachable housing part--.

Claim 113 (Line 2), “mobile terminal device” should be changed to --the mobile terminal device--.

Appropriate correction is required.

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***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 108 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 108 (Line 5) recites the limitation "the" in "the assembly". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 106, 110, 112, 113, 116, 119, 125, 127, 129, 144-146, 148 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshida et al. (U.S. Patent 6,690,417).

Referring to claim 106, the Yoshida reference discloses in Figures 1 and 3, a mobile terminal device (100) comprising: a housing of the mobile terminal device comprising at least one telecommunications component and a camera system (See Col. 5, lines 23-30) comprising a lens module (108) which enables taking pictures with optical imaging properties given by the

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lens module; the housing further comprising an optical properties changing unit configured to cooperate with the lens module of the camera system (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm (Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to “an optical properties changing unit”), so as to enable taking pictures using the camera system with changed optical imaging properties (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm (Column 7, lines 26-45). This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, it is clear that this mechanism is a part of the digital camera (a part of a housing)), wherein the unit comprises **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof” (Since claim 106 recites limitation “**at least one of**”, the Examiner considers that Yoshida still disclose claim limitation “wherein the unit comprises a lens,” as a lens 108, Figure 1, Column 5, Lines 25-30).

Referring to claim 110, the Yoshida reference discloses wherein the camera system is built into said mobile terminal device as shown Figure 1.

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Referring to claim 112, the Yoshida reference discloses wherein said mobile terminal device is a mobile phone as shown in Figures 1.

Referring to claim 113, the Yoshida reference discloses in Figures 1 and 3, a part of a housing of a mobile terminal device (100), which mobile terminal device comprises at least one telecommunications component and a camera system, wherein the part of the housing comprises an optical properties changing unit configured to cooperate with a lens module of the camera system (Yoshida et al. disclosed that lens 108 is zoom lens of three-time magnification, which is structured to shift the zooming positions manually, for example, in terms of a 35 mm camera, it has focal length of 24 mm to 103 mm, Column 7, lines 26-45. This indicates that the digital camera 100 includes a mechanism (such as a zoom button, a movable barrel for holding zoom lens) for shifting zooming positions manually, which changes the magnification of zoom lens 108, which corresponds to “an optical properties changing unit”), wherein the unit comprises **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof” (Since claim 113 recites limitation “**at least one of**”, the Examiner considers that Yoshida still disclose claim limitation “wherein the unit comprises a lens,” as a lens 108, Figure 1, Column 5, Lines 25-30), and the camera module with the lens module (108) is configured to enable taking pictures with optical properties given by the lens module and the optical properties changing unit is configured to enable taking pictures using the camera system with changed optical imaging properties when the unit is cooperating with the lens module (See Col. 7, lines 35-45).



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Referring to claim 116, the Yoshida reference discloses wherein the unit comprises a plurality of different optical assemblies (e.g., changing focal length for zooming and changing F number for setting optical apertures) integrated in the part of the housing, wherein the assembly is changeable upon actuation (See Column 7, Lines 20-54).

Referring to claim 119, the Yoshida reference discloses all subject matter as discussed with respected same comments to claims 112 and 113.

Referring to claim 125, the Yoshida reference discloses all subject matter as discussed with respected same comments to claims 106 and 113.

Referring to claim 127, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 110.

Referring to claim 129, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 112.

Referring claim 144, the Yoshida reference discloses all subject matter as discussed with respected same comments to claim 106.

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Referring claims 145, 146, 148, Yoshida et al. discloses wherein the housing is a unitary housing configured to cover the entire mobile terminal device (digital camera 100, Figure 1, Column 5, Lines 23-30).

8. Claims 120, 121, 124 and 147 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang (U.S. Patent Publication 2002/0155864).

Referring to claim 120, the Wang reference discloses in Figures 1-6, an apparatus for changing optical properties of a lens module of a camera system of a mobile terminal device, the module enables taking pictures with optical imaging properties given by the lens module, the apparatus being comprised by a part of a housing of the mobile terminal device, which mobile terminal device comprises at least one telecommunications component and the camera system (e.g., the mobile terminal device comprising at least one telecommunications component 10 and any other types of electrical components, such as display, digital camera, etc., to form a housing as showing Figures 1-6, see page 2, [0023]. It should be noted that the digital camera has means for changing optical properties of a lens module, such zooming and focusing operation as well known in the art), the apparatus comprising a unit comprising **at least one of** the following: a lens, an objective comprising lenses, at least one filter, a diffractive optical element, and combination thereof (Since claim 120 recites limitation “**at least one of**”, the Examiner considers that Wang still discloses claim limitation “a unit comprising a lens” as shown in Figure 6) and the unit being configured to cooperated with the lens module of the camera system so as to enable taking pictures using the camera system with changed optical imaging properties (e.g., the mobile terminal device comprising at least one telecommunications component 10 and any other

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types of electrical components, such as display, digital camera, etc., to form a housing as showing Figures 1-6, see page 2, [0023]. It should be noted that the digital camera has means for changing optical properties of a lens module, such zooming and focusing operation as well known in the art).

Referring to claim 121, the Wang reference discloses wherein the part of the housing is detachably connectable with the camera system as shown in Figure 6.

Referring to claim 124, the Wang reference discloses wherein the mobile terminal device is a mobile phone as shown in Figures 1-6.

Referring claim 147, Wang discloses wherein the housing is a unitary housing configured to cover the entire mobile terminal device (Wang discloses the communication module 10 is coupled to digital camera 40 (Figure 6, paragraph [0023]), this means that when the communication module 10 and the digital camera 40 are attached together, they are considered as a unit, which is located in a unitary housing.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 107, 108, 114, 115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (U.S. Patent 6,690,417) in view of Suda et al. (U.S. Patent 6,373,524).

Referring to claim 107, the Yoshida reference discloses all subject matter as discussed with respect to claim 106, except that the Yoshida reference does not explicitly show the optical properties changing unit is detachably connected with said camera system.

The Suda reference teaches in Figure 1, an interchangeable lens assembly (127) camera system including zoom and focus lenses (102 and 105), motors (121 and 125) for driving the zoom and focus lenses and controlled by motor control circuit (118) as providing the means for changing optical properties; and the interchangeable lens assembly is detachably connected with the camera system (camera main body 128, see Col. 5, lines 49-60). The Suda reference is evidence that one of ordinary skill in the art at the time to see more advantages the digital camera system having an interchangeable lens assembly (including optical properties changing unit) detachably attached to the camera main body so that the camera system can easily work with different types interchangeable lenses (See Col.3, lines 9-21). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Yoshida ('417) by providing means changing optical properties is detachably connected with the camera system as taught by Suda ('524).

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Referring claim 108, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claim 107.

Referring to claim 114, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claim 107.

Referring to claim 115, the Yoshida and Suda references disclose all subject matter as discussed with respected same comments to claims 107 and 113, and Suda reference discloses wherein said part of said housing (camera) is detachably connected to a lens module.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571)272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LUONG T NGUYEN/  
Primary Examiner, Art Unit 2622  
11/22/09